

10

Conclusions

10.1 Introduction

This document, the draft Regional Water Resources Plan South West (draft RWRP-SW), is the second of the four (4) Regional Plans.

The first draft Regional Water Resources Plan for the Eastern and Midlands Region (draft RWRP-EM) was issued for consultation in December 2021, which closed on 8th April 2022. The draft RWRP-EM is available at: <https://www.water.ie/projects/strategic-plans/national-water-resources/rwps/eastern-midlands/>. The intention is that these two (2) draft Regional Plans will be followed by two (2) further Regional Plans over the next 12 months for the North West and South East Regions.

Together the four (4) Regional Plans, along with our Framework Plan, form Ireland's first National Water Resources Plan (NWRP). The NWRP allows us to review all our water supplies in a consistent way and to develop a clear approach to resolve any issues and to prioritise investment in water services over the short, medium and long-term.

In the development of the draft RWRP-SW Irish Water considered relevant government policy and legislation, and a range of external factors which have the potential to impact our water supplies. These include the effects of climate change, increased population growth and economic development and tighter drinking water and environmental standards. The water resources planning process will enable Irish Water to support the sustainable development of our water resources at a regional and national scale.

This draft RWRP-SW has developed Plan Level solutions, known as Preferred Approaches, to address the Needs of the 174 Water Resource Zones (WRZs) within the South West Region.

The purpose of the plan is to allow us to understand the scale and type of transformation required across the entire public water supply in terms of achieving our Quality, Quantity, Reliability and Sustainability objectives for existing and future water users.

To understand the current state of our assets and its surrounding environment, the draft RWRP-SW reviewed the:

- External baseline across the South West Region in terms of natural resources, population growth and economic development, and impacts of climate change; and
- Internal baseline of our existing water supply asset base in terms of capacity and performance of supplies (abstractions and treatment plants) and efficiency of our distribution networks.

10.2 Baseline of the Public Water Supplies in the South West Region

The existing water supply asset base within the South West Region consists of 172 groundwater sources and 75 surface water sources that feed 227 Water Treatment Plants (WTPs). On average 316 million litres per day (Ml/d) of water is produced by these WTPs and fed into 174 stand-alone WRZs. The distribution network within the 174 WRZs consists of approximately 7,920 kilometres of water mains. The existing WTPs and major interconnecting water pipelines (Trunk Mains) are shown in Figure 10.1.

At present the Needs across the water supplies in the South West Region can be summarised as follows:

- 16% of the supplies do not meet a 1 in 50-year Level of Service (LoS) in normal weather conditions.
- 33% of the supplies do not meet the 1 in 50 LoS in drought conditions.

- 70% of supplies are associated with a ‘high-risk’ for one of our Water Quality Barriers and therefore do not conform to the conservative Quality risk reduction standards we have set for ourselves as a water utility.
- Based on desktop assessments, 54 of our supplies may not meet sustainable abstraction levels in the short to medium term.
- Efficiency of our current distribution networks is poor, and it is estimated that approximately 48% of the water that is passed through our watermains in this region is lost through leakage.

We also face the challenges of:

- Facilitating government policy on growth and economic development; and
- Transforming our supplies to ensure that the entire public water supply is environmentally sustainable and adaptable to climate change.

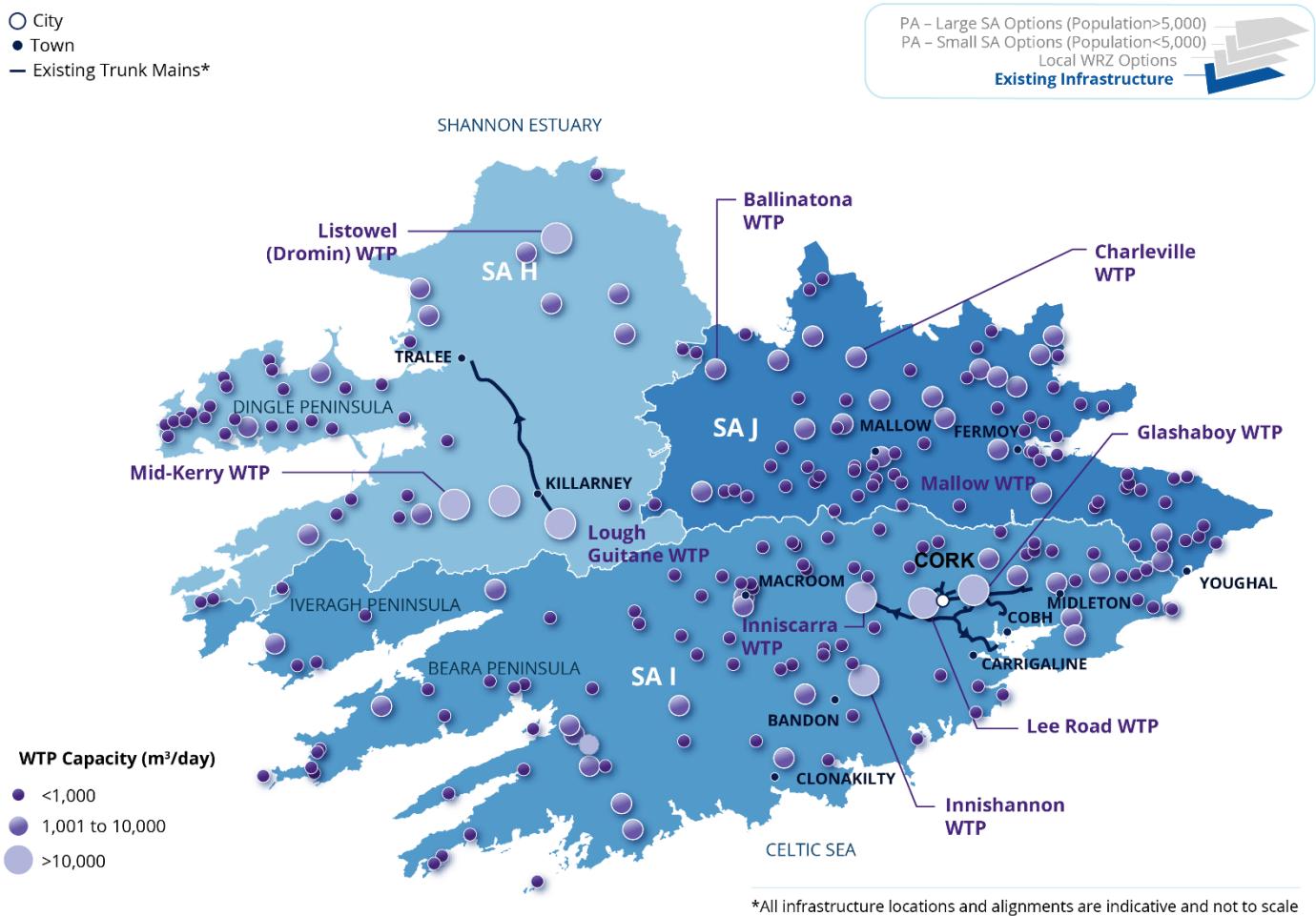


Figure 10.1 Existing Water Treatment Plants (WTPs) and Major Interconnecting Pipelines (Trunk Mains)

10.3 Plan Development

The purpose of the draft RWRP-SW is to determine the Preferred Approach and interim solutions we need to transform our water supplies in the South West Region over the short, medium and long-term. The draft RWMP-SW, as proposed, will achieve the standards we set for ourselves in the Framework Plan, including:

- At least a 1 in 50 LoS across all water supplies in all-weather scenarios including normal, dry, drought and winter conditions. This means that the probability of our customers experiencing a water shortage or severe limitation to supply is 2% in any given year.
- Ensuring that the correct barriers are in place at all our sources, WTPs and within our distribution networks, to reduce risks to water Quality to an acceptable level.
- Ensuring that all our supplies are environmentally sustainable and resilient to climate change.

To achieve this, as part of the draft RWRP-SW we reviewed 1,676 Unconstrained Options to address the identified Needs and took them through the Option screening process. This produced a feasible list of 999 Options. We have developed Plan Level outline designs and costings for all 999 Feasible Options.

The basis of the Feasible Options considered within the draft RWRP-SW is that they must be environmentally sustainable, technically feasible, promotable and deliverable. The Feasible Options are summarised in Figure 10.2. They cover a broad range of supply types including; supply rationalisation (where smaller water supply systems are decommissioned and connected to larger supply systems), new and increased groundwater and surface water sources, water transfers and desalination.

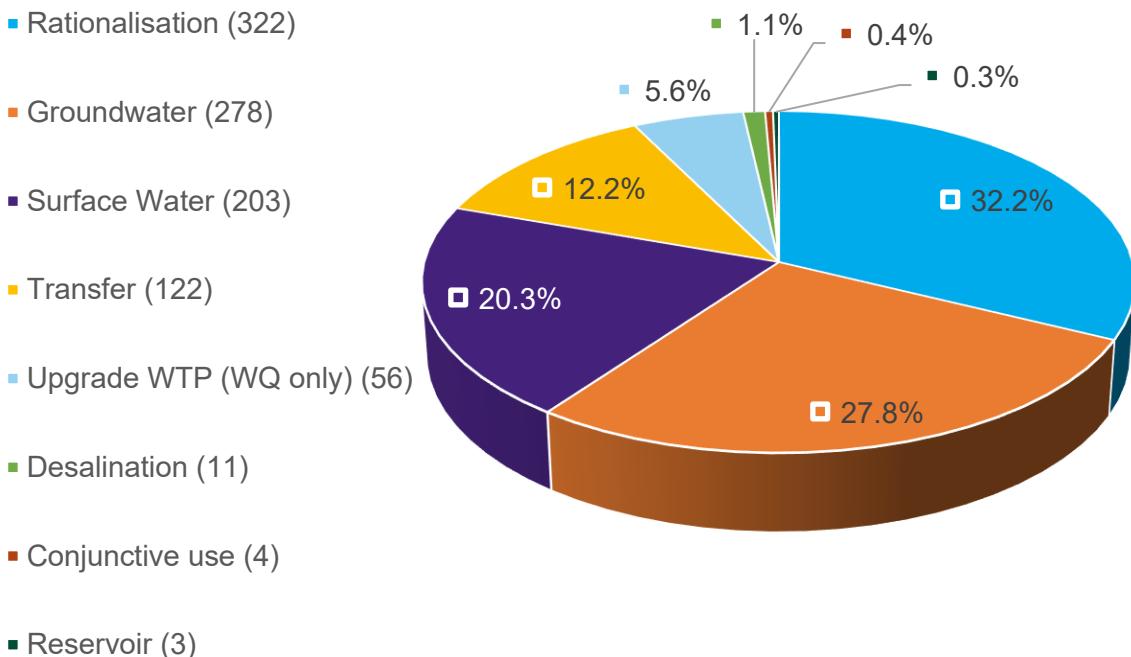


Figure 10.2 Feasible Option Types

The Feasible Options consist of both small local options that are only suitable to address the Need in the immediate vicinity of a supply, and larger Study Area and Cross Study Area Options that can address Need across multiple supplies. We assessed all the Feasible Options to develop the Preferred Approach for each WRZ. The Preferred Approach is the Feasible Option, or combination of Feasible Options, that provide the best overall outcome for the supply in terms of the assessment criteria we set within the Framework Plan. As outlined in Section 7.2, the criteria align with relevant government policy.

Within the Approach Development Process, we applied the resources planning methodology (EBSD – Economics of Balancing Supply and Demand) uniformly to rank and appraise the Options. This provided a robust and transparent process to support the selection of a Preferred Approach that represents the best overall outcome against our assessment criteria. In other words, the Plan does not promote particular types of Options. If a small local solution scores best against the Plan and policy objectives (encapsulated by the assessment criteria) our Approach Development Process would present this as the Preferred Approach. Similarly, if a larger SA or Regional Option provides a better outcome across a number of supplies, this would be selected as the Preferred Approach.

10.4 Plan Outcome

As set out in Section 8, our Option Development Process for the South West Region did not identify any Feasible Options with the potential, in terms of quantity and distribution of supply, for a large-scale interconnection of multiple WRZs across the Study Area boundaries. For this reason, the Study Area (SA) Preferred Approach that is presented in Section 7 is identified as the ‘Best Value’ solution to address the regional water supply Need. The Regional Preferred Approach is therefore defined as the combination of the three (3) SA Preferred Approaches for the South West Region.

The Regional Preferred Approach consists of a combination of local water supply sources and Study Area solutions. These involve:

- Reducing the number of WRZs in the South West Region from 174 to 92;
- Constructing 644 kilometres of trunk mains (diameter > 300mm) to develop larger interconnected WRZs for the urban areas in the region;
- 17 new water treatment plants (WTPs);
- Decommissioning 90 WTPs and 91 existing sources;
- Increasing the barrier performance of the 137 remaining WTPs and upgrading the capacity of 47 of these to address the current supply Deficit and to meet forecast growth; and
- Reducing leakage from the 2019 baseline (48% of regional demand) to 23% of regional demand. (For WRZs with a demand greater than 1,500 cubic meters per day (m^3/day), leakage will be reduced to 21% of the average WRZ demand). Leakage reduction will be achieved through pressure management, active leakage control, find and fix and asset replacement.

The outcome of delivering the Regional Preferred Approach as proposed, is that:

- All WRZs in the South West Region will have an improved minimum LoS of 1 in 50 in drought and winter conditions, as well as increased resilience during normal and dry;
- All WRZs will include appropriate barriers to mitigate against water Quality risk; and
- All WRZs will be resilient with improved environmental sustainability.

These outcomes are described further in Section 10.5.

10.5 Benefits of the Preferred Approach for the South West Region

10.5.1 Reducing Quantity Risk

If all the Options identified in the Regional Preferred Approach are delivered there will be no supply Deficit for any of the WRZs in the South West Region. This means that, following implementation of the draft RWRP-SW, each WRZ will have enough water in supply (Water Available for Use) to meet peak water demand during all-weather planning scenarios (Normal Year Annual Average (NYAA), Dry Year Annual

Average (DYAA), Dry Year Critical Period (DYCP) and Winter Critical Period (WCP)) at a 1 in 50 LoS. This achieves the objectives identified under the Lose Less and Supply Smarter pillars set out in our Framework Plan.

In the South West Region, the supply Deficit and forecast growth will be met by 62 local independent supply systems (Figure 7.11), 17 small interconnected systems (each serving a population less than 5,000) (Figure 7.12), and 13 large interconnected systems. There will also be three (3) cross regional interconnections from sources in the Eastern and Midlands or South East Regions. The interconnected supplies will benefit an estimated 93% of the 2044 population.

New or upgraded surface water sources will serve eleven (11) of the interconnected systems. The largest of these, which is located in Study Area I (SAI), involves an upgraded surface water abstraction at the Inniscarra Impoundment, which supplies Cork City. This will resolve Need across 22 WRZs (including Cork City). The scheme will rationalise 18 of the 22 WRZs, resulting in the decommissioning of 20 WTPs and abstractions. The full demand of these WRZs will be met by the upgraded abstraction at Inniscarra Impoundment. A further three (3) WRZs - Bandon Regional, Clonakility and Midleton – will be connected to the system. The existing supplies for these WRZs will be maintained and only the Deficit will be met by the upgraded abstraction. By 2044, the newly formed WRZ within the Study Area will serve an estimated 60% of the regional population and meet 47% of the forecast Demand.

The proposed new surface water supply from Lough Leane will support growth in the Key Towns of Killarney and Tralee as well as several other large settlements in Study Area H (SAH), including Castleisland and Castlemaine. The new interconnected supply (which merges the Central Regional - Lough Guitane, Mid-Kerry and Rathmore WRZs) will serve approximately 104,000 customers by 2044, representing 13% of the regional population.

New or upgraded groundwater abstractions will serve 20 of the interconnected systems. Twelve of these systems will be abstracting from groundwater aquifers in Study Area J (SAJ). The largest of these will involve the rationalisation of eight (8) WRZs to the Mallow supply system. This system will serve approximately 20,000 customers by 2044, representing 3% of the regional population.

Figure 10.3 shows the largest interconnected supplies in each Study Area.

- City
- Town
- Orange New Mallow Regional WRZ
- Pink New Central Regional/Mid Kerry WRZ
- Red New Cork City Regional WRZ
- Blue Lake
- Dark Blue River
- % Percentage of the Regional Population Served

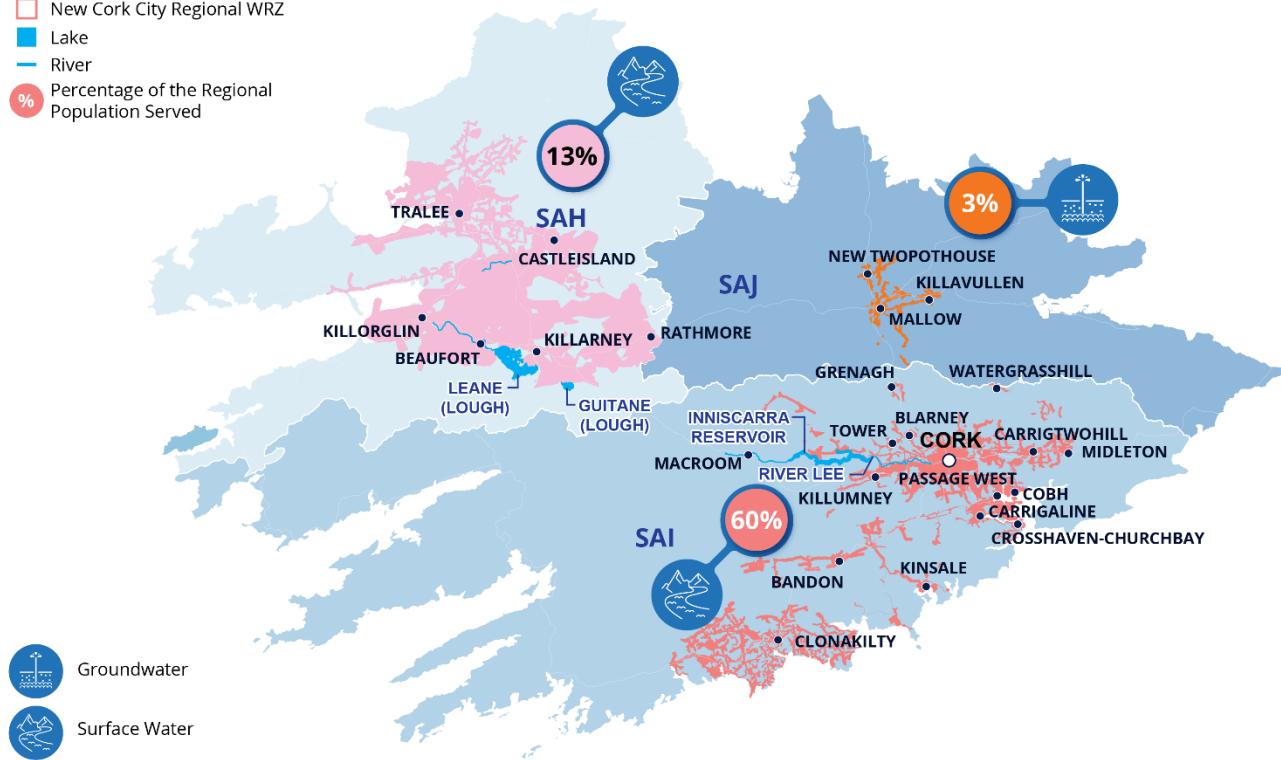


Figure 10.3 Large Interconnected Supplies in SAH, SAI and SAJ

The largest Cross Study Area Option (connecting supplies across Study Area boundaries) will rationalise two WRZs in SAH (Cahersiveen and Emphaghpeasta/Portmagee/Maolin) to the Waterville WRZ in SAI. Caherdaniel WRZ in SAI will also be connected to the Waterville system. The new interconnected system will be supplied by upgrading the existing surface water abstraction at Lough Currane, serving a combined 2044 population of approximately 5,600. With the Option in place, the total abstraction from Lough Currane will represent less than 1% of the estimated sustainable abstraction threshold from the lake.

As well as the proposed upgraded and new supply sources, the regional Deficit will be addressed by leakage reduction measures. Irish Water has committed to leakage targets beyond the Sustainable Economic Levels of Leakage (SELL) (as outlined in Section 5). The additional targets will reduce leakage levels to 21% of demand in WRZs where demand exceeds 1,500 m³/day. When smaller WRZs with higher leakage targets are considered, this averages to 23% of demand across the region. Figure 10.4 shows the cities and Key Towns and other settlements that will benefit from the Lose Less Pillar (leakage reduction) of the Framework Plan.

○ City
● Town

Leakage Reduction as a Percentage of Demand

- City
- RSES Key Towns*
- Other Towns (with 21% leakage)

*Regional Spatial and Economic Strategies (RSES)

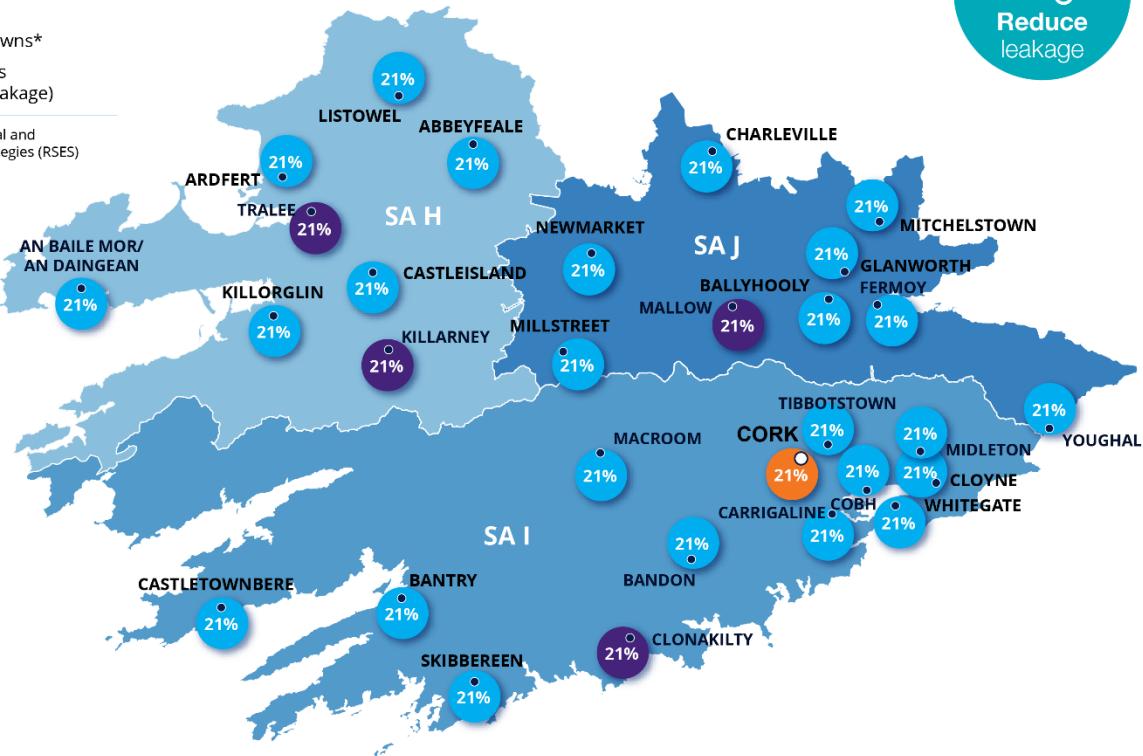


Figure 10.4 Leakage Reduction Targets for the South West Region

Additional benefits of the Preferred Approach for the South West Region include:

- Each supply will have the appropriate headroom and outage standards to ensure that we can provide a minimum 1 in 50-year LoS to water users.
- The new interconnected systems (Cork City extended WRZ and Central Regional/Mid-Kerry/Rathmore WRZs) will allow us to balance peaking and variability in demand across a larger baseline thus reducing our vulnerability to events such as droughts.
- Overall Quantity risk will also be reduced based on utilising sustainable sources for supplies. This will support population growth and economic development within the South West Region and ensure that the growth targets set by the Regional Assemblies and Local Authorities can be achieved.
- Provision of the 1 in 50 LoS to our customers will reduce the number of outages our customers would typically expect to experience and reduce the frequency of water conservation orders and hose pipe bans required.
- Increased efficiency and economies of scale in delivering leakage reduction measures to large interconnected systems (compared with fragmented systems). This will result in environmental benefits from energy and carbon savings and reduced pressure from abstractions.

10.5.2 Reducing Risk to Water Quality

Although our compliance with the Drinking Water Regulations is over 99%, at present 70% of the 227 WTPs in the South West Region have barrier or alarm deficits when assessed against the risk reduction standards we have set for ourselves as a utility. This means that, in some cases, the treatment assets do not have the capability to fully address Quality risks at all times; particularly after very heavy rainfall, where the raw water quality in our sources may deteriorate significantly for short periods of time.

Quantity and Quality risks are interrelated, as often Water Quality risks are caused or exacerbated by insufficient capacity in our WTPs. For example, having sufficient treatment capacity to allow us to take filters offline for essential repairs results in lower potential risks to Water Quality. This is why peaking and outage allowances are included within the Supply Demand Balance and the design standards for future projects within the capital investment plans.

In addition to this, raw water quality can fluctuate significantly based on weather conditions in the natural environment. Controlling Water Quality risk across a very large number of isolated supplies 24 hours per day, 365 days per year can be difficult. Therefore, larger water supplies, which allow for more focussed operational controls and monitoring, can help address this risk. The effectiveness and efficiency of larger supplies with improved interconnectivity is evidenced in the majority of other EU jurisdictions, many of which have far fewer WRZs despite having larger populations.

Where it is not possible to interconnect systems due to the isolated location of the WRZ or the potential environmental impact of associated construction work or operations, we have developed smaller local supplies. For these smaller systems, we manage operational risk by selecting sources that are less susceptible to large variations in water quality with good source protection.

When the Options identified in the Regional Preferred Approach are delivered there will be no barrier deficit at any of the WTPs in the South West Region. Therefore, the risk of drinking water non-compliance or boil water notices will be significantly reduced.

In the South West Region this will be achieved via delivery of 17 new WTPs, capacity and barrier performance upgrades to 47 existing WTPs, barrier performance upgrades to a further 90 existing WTPs and decommissioning 90 existing WTPs. In addition to the capital works, source protection measures and development of full Drinking Water Safety Plans for each supply will allow for appropriate and continuous risk management in accordance with the requirements of the recast Drinking Water Directive.

Additional Water Quality benefits of the Preferred Approach include:

- The creation of 30 new interconnected systems within the region and the rationalisation of three (3) WRZs to supply systems in adjacent regions. This will decommission 90 existing WTPs. The reduced number of WTPs will allow tighter management and operational controls over Water Quality. This will in turn enable targeted investment in the maintenance of a smaller amount of infrastructure. As an example, the Cork City interconnected Option will decommission 20 WTPs and create a network of ten (10) remaining WTPs that will serve an estimated 473,000 customers in the South West Region by 2044. The interconnected network will also include eleven (11) new treated water storages that will enable plant shutdowns and trunk main repairs, while maintaining supplies to customers.
- Small local groundwater sources will supply 50 WRZs that meet 7% of the estimated 2044 regional demand. (This includes existing supplies where WRZs are not in Deficit). These sources have been selected based on water availability, sustainability, natural storage and stable raw water quality. The Preferred Approach for these WRZs will also involve appropriate source protection, treatment barriers and treated water storage specific to each WRZ. Therefore, the operational vulnerability of having a larger number of small supplies will be offset by utilising secure and stable sources.

- Twelve (12) WRZs will be supplied by local surface water sources that will serve 3% of the estimated 2044 regional demand. (This includes existing supplies where WRZs are not in Deficit). Given the small number of these WRZs it is anticipated that Water Quality risk can be managed using correct treatment barriers within the new and upgraded WTPs, including appropriate plant shut down and strategic storage. In most cases, these non-interconnected surface water supplies have been selected as there is no groundwater availability in the area. However, as the Preferred Approach progresses towards Project Level, we will investigate whether there are further nature-based solutions that can improve the risk profile of these sources. An example of this would be to investigate the feasibility of an infiltration gallery or abstraction from riverbed gravels as an option on a standard intake. Such solutions can improve the stability of raw water, particularly after storm events.

10.5.3 Reliability and Sustainability

In the South West Region, Irish Water currently abstracts from 247 different water sources and has 227 WTPs which collectively serve 594,000 people or 14% of the national population; all of which need to be maintained and operated in a sustainable manner. Surface water abstractions make up 81% of the water delivered to customers, either from rivers or lakes, with the remaining 19% from groundwater sources. These surface water and groundwater interactions are an important consideration when identifying Options to support increased water demands and in managing the Water Quality we supply.

Some of the highest areas of rainfall across Ireland occur in the South West Region. Most of the region experiences average annual rainfall between 1,400 and 1,600 mm per year. In comparison, Dublin and Kildare (located in the Eastern and Midlands Region of the NWRP) experience the driest weather across the country with average annual rainfall of less than 800 mm. Cork City has the greatest population density but receives the lowest level of rainfall in the South West Region resulting in resources in the most populated areas being at risk of becoming stressed. Water supply reliability is further impacted by adverse weather conditions including storms, cold weather conditions and dry periods. Due to climate change it is likely that over time in Ireland we will encounter wetter and stormier conditions at certain times of the year, and prolonged dry periods at other times of the year. Therefore, the reliability and sustainability of our sources will become more reliant on appropriate storage in the natural environment over time.

Sustainability issues are also not just a result of climatic conditions. In Ireland, many of our water supplies were developed in a piecemeal manner over time, with water sources based on proximity to the populations they served. As towns and villages have grown in size over time, it has meant that some of these supply sources now have Sustainability issues, particularly in dry weather.

Under the Water Framework Directive (WFD), Ireland must ensure that all waterbodies achieve ‘Good’ status by 2027. As outlined in Section 3.7.2 of the Framework Plan, the Government is currently introducing new legislation that will introduce abstraction licensing to align with the WFD. This legislation will set the amount Irish Water can take from the water supplies that it abstracts water from. Irish Water lacks comprehensive data to fully understand the impact of the new legislation on many of its abstractions. Irish Water is building a telemetry system which will aid bringing all this data together (as it was historically collected by individual local authorities), but this will take time. Therefore, improved monitoring and gathering better data is a priority.

On an interim basis, Irish Water has developed an initial desktop assessment based on available information. This conservative assessment is used to identify existing surface water sites where abstractions may exceed sustainable abstraction thresholds and also to identify sustainable future sources. This assessment was used in developing our Preferred Approach for the South West Region.

In addition to this, the assessment criteria used in our approach appraisal process has been developed using the objectives of the Strategic Environmental Assessment. This means environmental sustainability is built into the core of our plans and that all Feasible Options and Preferred Approaches have been assessed as being sustainable at Plan Level. This will be further assessed at Project Level, as the projects identified within the Preferred Approach progress.

The Preferred Approach for the South West Region is reliable, sustainable and resilient to climate change, based on the following:

- The process of assessing performance of existing and future abstractions is based on conservative standards on water availability.
- The Feasible Options must be assessed to be sustainable at a Plan Level.
- The approach appraisal process utilises a multi criteria assessment where the assessment criteria are based on the objectives of the Strategic Environmental Assessment.
- The Preferred Approach will result in 90% of the volume supplied provided by larger interconnected systems (offering operational flexibility and increased resilience), 7% supplied from groundwater systems with natural storage that increases reliability, and the remaining 3% supplied from sustainable surface water sources.
- The number of sources will reduce from 297 to 237. This facilitates the removal of nine (9) potentially unsustainable surface water abstraction sites and reduction to sustainable levels of a further 18 surface water abstractions.

The reliability of our water supplies is also dependent on the standard of our network infrastructure. The Study Area technical reports appended to the draft RWRP-SW outline a number of vulnerable critical assets within each Study Area. These critical assets will be replaced or rehabilitated as part of the development of the Preferred Approach, reducing the risk of outage across our supplies.

10.5.4 Transformation

The development of the draft RWRP-SW allows Irish Water for the first time to review water supply needs collectively across the South West Region and across the entire spectrum of risk including Quality, Quantity, Reliability and Sustainability. It allows us to consider local Options to resolve these Needs and larger Regional Options that can address multiple supplies.

The Plan allows us to move away from reactive management of risk at a single source or for a single Need (e.g., Quality risk alone), to a more holistic view of the transformation required across all of our supplies to meet the objectives set out in the Water Services Strategic Plan (WSSP) and the Water Services Policy Statement (WSPS). The WSSP is Irish Water's Strategic Plan which is a plan required under statute and sets out Irish Water's business objectives in terms of water and wastewater services. The WSFS 2018-2025, is the Government's policy document on water services.

The Regional Preferred Approach for the South West Region will result in 93% of the population being served by interconnected WRZs. As described in Section 10.5.1 above, the largest of these, the expanded Cork City supply system, will serve an estimated 60% of the regional population and meet 47% of the forecast Demand by 2044.

The draft RWRP-SW provides:

- An understanding of, *inter alia*, the current state of our infrastructure, the potential Sustainability of our supplies, potential Water Quality issues, the location and Quantity of potential new sources and the settlements they can supply, the additional settlements that existing abstractions can supply and where investment is needed and its priority.
- A high degree of flexibility in our plans, particularly in terms of domestic and non-domestic growth. For example, our baseline figures for non-domestic growth, include high growth in water demand in the Cork City, and medium growth in the Key Towns. Having an interconnected network allows us to facilitate and support higher growth in the smaller connected settlements within the South West Region, if Need manifests itself in that way over time.
- More balance across the South West Region, with the abstractions for regional supplies balanced across all of the major catchments of the region. Water abstraction to support public water supply will become more sustainable and resilient to future shocks such as drought and climate change.
- Improved risk management across a smaller number of interconnected WRZ, where possible. Where this is not possible, we will manage risk by selecting secure protected water sources and appropriate treatment barriers.
- An understanding of the transformation required across our water supplies, to ensure that we can have reliable and sustainable supplies into the future.
- An understanding of the scale and asset type we require to ensure Quality and that our customers receive the required Quality and Quantity.
- A combination of solutions - Use Less, Use Less and Supply Smarter.
- The investment required over the short, medium and long term to transform our supplies.
- A sensitivity assessment that allows us to test the Preferred Approach against a range of future scenarios.

10.5.5 Alignment with Policy

The Framework Plan was designed to align with all relevant government policy, including policy on water services, growth and economic development, the environment, climate change adaptation and public spending.

The Preferred Approach identified within the draft RWRP-SW therefore aligns with the government policy framework and Irish Water's own internal policies and standards for our water supplies.

10.5.6 Alignment with Investment Planning

The completion of and adoption of the RWRP-SW, along with the RWRP-EM and two (2) remaining Regional Water Resources Plans for the North West and South East, will identify the Preferred Approach to address Quality, Quantity, Reliability and Sustainability issues for every WRZ in Ireland. Therefore, the NWRP will provide the foundation for understanding the strategic investment requirement to transform our water supplies and will drive our future investment plans for water services.

Irish Water will prioritise this capital need utilising a Value Framework to ensure the projects that offer the most value to our customers is progressed first, and the future forecast for capital investment will be built on

that basis. This will result in a 40-year Investment Plan that includes accurately scoped and appropriately prioritised capital projects.

10.6 Alternatives to the Plan

During the Study Area Level assessment process summarised in Section 7, the Feasible Options were compared to see whether any SA or Regional Options were available to meet the Need across multiple WRZs. For some Study Areas this led to the identification of Preferred Approaches which involve an external transfer i.e., from a supply in another Study Area.

For the Regional Level assessment, the potential Preferred Approach has been reviewed further to consider potential for any additional alternative combinations at this level.

The potential for large feasible options with the capability to provide regional interconnectivity is limited by the terrain across the South West Region and the volume of water that can be sustainably abstracted from the water sources. The Preferred Approach for each Study Area does however comprise large, interconnected supplies within the Study Area boundaries and in this way provides the benefit of resilience and improved environmental outcomes, through the decommissioning of unsustainable sources.

10.7 Interim Options

Given the significant issues with the baseline supplies in terms of Quality, Quantity, Reliability and Sustainability, the “do nothing” approach is not feasible. Need will also get worse over time due to growth in demand and reduction in supply availability and resilience due to climate change.

It may take a considerable period of time to deliver the Preferred Approach across all supplies within the South West Region due factors such as:

- Scale of Need across all WRZs;
- Likely minimum project lead-in times; and
- Irish Water’s current capital funding arrangements.

Therefore, Irish Water also recognises the need for localised, shorter-term interventions within existing supplies to address critical water Quality risk and supply Reliability issues before the Preferred Approach can be implemented in full.

Accordingly, within the draft RWRP-SW we have also developed an “interim solution” approach, which allows such interventions to be identified and prioritised.

As a general principle, this interim approach envisages shorter term, improvements to existing infrastructure and equipment. These interventions are not intended to deliver a long-term solution to identified supply and water Quality issues. They are generally smaller in scale and rely on making best use of existing infrastructure to meet urgent or priority need to address water Quality risk or supply Reliability. The Interim solutions are determined in line with the Preferred Approach and as such, they are considered “no regrets” infrastructure investment. The Interim Options are outlined in Technical Appendices 1 to 3 and summarised in Section 7.6.

10.8 Conclusions

The existing public water supply in the South West Region serves a population of 594,000 people, and 45,000 businesses via 174 individual WRZs. The water supplies in the South West Region require significant transformation and investment to meet the requirements of safe, secure, reliable and sustainable water supply. The Framework Plan set the standards we must achieve to meet Irish Water's objectives as set out in the WSSP. It also developed the methodology we would use to identify the Preferred Approach to resolve Needs across our water supplies.

Within the draft RWRP-SW we summarised the Need across the 174 supplies and identified the Preferred Approach at Regional Level to address these Needs.

Delivery of the Preferred Approach will provide the best overall outcome for the region, particularly in relation to environmental, ecological and resilience outcomes, and will result in:

- Transformation of water services in the region, from a fragmented supply system with large variation in levels of service, to an interconnected supply with uniform and improved level of service.
- Customer benefits in terms of increased Reliability and reduced occurrence of outages across our supplies.
- Customer benefits in terms reduced water Quality risk and the instances of boil water notices
- Improved resilience, with 93% of the population supplied through interconnected sources that will provide operational flexibility, allowing us to manage seasonal variation in water availability and drought events. The remaining populations will be served by sustainable local groundwater and surface water sources.
- Sources that are more environmentally sustainable and allow us to adapt to climate change and align with the requirements of the Water Framework Directive and Habitats Directive.
- Improved operational control across our water supplies, and ability to react to adverse events.
- Improved efficiency of our distribution networks in terms of leakage, pressure and strategic storage.
- Ability to facilitate growth and economic development.

10.9 Next steps

Consultation on the draft Regional Water Resources Plan- South West

We are consulting on the draft Regional Water Resources Plan for the South West Region during the period **1st June through to the 23rd August 2022** and would like to hear your views.

If you would like to make a submission, please send it by email or post by **Tuesday 23rd August 2022**.

Email: nwrrp@water.ie

Post: National Water Resources Plan, Irish Water, PO Box 13216, Glenageary, Co Dublin.

Freephone: 1800 46 36 76

All feedback received will be reviewed by the NWRP team and our responses will be published.

Following the consultation, we will publish a final version of the RWRP-SW on www.water.ie/nwrrp

We will then commence the drafting and consultation on the draft RWRPs for the remaining regions of North West and South East. We will apply the Options Assessment and Preferred Approach Methodology set out in the adopted Framework Plan to each water supply. This will allow us to develop a nationwide programme of short, medium and long-term options that we will present for consultation within the Regional Plans. The Regional Plans once adopted will be used to inform future regulated capital investment plans and operational plans.

Consultation on the remaining Regional Water Resources Plans including corresponding SEA Environmental Reports and Natura Impact Statements will be undertaken during 2022.